

HONG KONG ATTAINMENT TEST

香港學科測驗

Pre-Secondary One

中一入學前

Mathematics

數學

Mock Paper 3

模擬試卷(三)

Time allowed for the test: 50 minutes

測驗時間：50分鐘

Instructions:

1. This test contains two sections:
Section A: Questions 1-30
Section B: Questions 31-37
2. Answer ALL questions.
3. Write your answers on the answer sheet.
4. Write your name, class and class number on the answer sheet.
5. You may do your rough work in the blank space of this test booklet and there is no need to rub it out after the test.
6. The use of calculator is not allowed.

學生須知：

1. 本測驗卷共有兩部分：
甲部：第1至第30題
乙部：第31至第37題
2. 全部題目均須作答。
3. 把答案寫在答題紙上。
4. 在答題紙上填寫學生姓名、班別及學號。
5. 學生可利用本測驗卷的空白部分做算草，測驗完畢後無須將算草擦去。
6. 不准使用計算機。



CLASSROOM Pre-Secondary One Mathematics Mock Papers (P.6)

課室中一入學前數學科模擬試卷(小六)

Note:

Not all diagrams are drawn to scale.

注意：

部分附圖不依比例繪畫。

SECTION A (60 marks)

Choose the correct answer. You only need to write down the letter preceding the selected answer.

甲部 (60分)

選出正確的答案。學生只須填上所選答案前的英文字母。

1. The fifth common multiple of two numbers is 240. Which of the following groups of numbers may be these two numbers?

- A. 4, 12
- B. 6, 8
- C. 12, 16
- D. 20, 24

1. 兩個數的第五個公倍數是240。以下哪一組數可能是這兩個數？

- A. 4、12
- B. 6、8
- C. 12、16
- D. 20、24

2. How many '0.02's are there in $2\frac{2}{5}$?

- A. 240
- B. 120
- C. 24
- D. 12

2. 在 $2\frac{2}{5}$ 這個數中包含多少個「0.02」？

- A. 240
- B. 120
- C. 24
- D. 12

3. $54\textcircled{a}$ is a 3-digit number. When it is divided by 22, the remainder is 19. Which of the following is a ?

- A. 3
- B. 5
- C. 7
- D. 9

3. $54\textcircled{a}$ 是一個三位數。當它除以22，餘數是19。下列哪一個是 a ？

- A. 3
- B. 5
- C. 7
- D. 9

4. The number of immigrants in City P is about 332 000 when corrected to the nearest thousand. Which of the following is the possible largest number of immigrants in City P?

- A. 332 999
- B. 332 500
- C. 332 499
- D. 331 999

4. 取近似值至千位後，城市P的移民人數約是332 000。下列哪一個數是城市P移民人數可能的最大值？

- A. 332 999
- B. 332 500
- C. 332 499
- D. 331 999

5. 1, 2, 6 are used to form the smallest 3-digit number which is a multiple of 4. Each digit should not be used repeatedly. What is the H.C.F. of that 3-digit number and 96?

- A. 96
- B. 62
- C. 32
- D. 24

5. 用1、2、6組成一個最小的三位數，且該數是4的倍數，每個數字不可重複使用。該三位數和96的H.C.F.是多少？

- A. 96
- B. 62
- C. 32
- D. 24

6. The price of a mooncake is \$25. One extra free mooncake will be given when buying 5 mooncakes. Mr Chan only needs 25 mooncakes. How much should he pay at least?

- A. \$500
- B. \$525
- C. \$600
- D. \$625

6. 一個月餅的售價是\$25，購買5個可額外獲贈一個。陳先生只需要25個月餅，他最少須付多少？

- A. \$500
- B. \$525
- C. \$600
- D. \$625

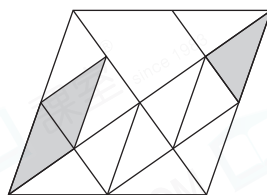
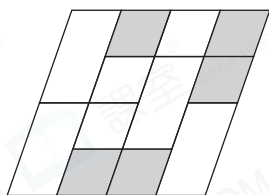
7. 840 students in a school took part in an Inter-School Sports Day. $\frac{1}{21}$ of the students participated in the high jump event and among them $\frac{2}{5}$ were girls. How many boys participated in the high jump event?

- A. 16
- B. 24
- C. 32
- D. 40

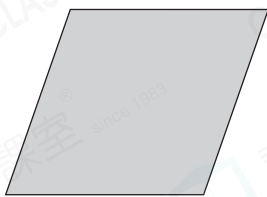
7. 學校有 840 名學生參加聯校運動會， $\frac{1}{21}$ 的學生參加跳高比賽，其中 $\frac{2}{5}$ 是女生。那麼參加跳高比賽的男生有多少名？

- A. 16
- B. 24
- C. 32
- D. 40

8. The following figures are two rhombuses of the same size.



If each



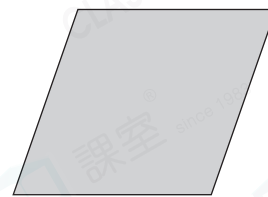
stands for

1, what is the value of the sum of the shaded parts?

- A. $\frac{5}{12}$
- B. $\frac{7}{16}$
- C. $\frac{1}{2}$
- D. $1\frac{1}{4}$

8. 下圖是兩個大小相同的菱形。

如果每個



代表

1，陰影部分相加後代表的值是多少？

- A. $\frac{5}{12}$
- B. $\frac{7}{16}$
- C. $\frac{1}{2}$
- D. $1\frac{1}{4}$

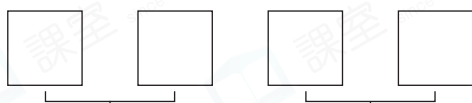
9. Which of the following has the smallest value?

- A. $8 + 0.88 + 0.08$
- B. $0.8 + 8 + 8.08$
- C. $0.08 + 8.08 + 0.8$
- D. $0.8 + 0.08 + 8$

9. 下列哪一項的值最小？

- A. $8 + 0.88 + 0.08$
- B. $0.8 + 8 + 8.08$
- C. $0.08 + 8.08 + 0.8$
- D. $0.8 + 0.08 + 8$

10. A 4-digit code is composed of a 2-digit composite number and a 2-digit prime number as shown below.



Composite Number Prime Number

Which of the following is the possible code?

- A. 2144
- B. 3359
- C. 4317
- D. 7163

10. 一個四位數的密碼，是由一個兩位數的合成數和一個兩位數的質數合併而成，如下圖所示。



合成數 質數

以下哪一個可能是這個密碼？

- A. 2144
- B. 3359
- C. 4317
- D. 7163

11. Kent ran $4\frac{2}{5}$ km. Coral ran longer than Kent but not longer than $4\frac{27}{40}$ km. Which of the following could be the distance Coral ran?

- A. 4.04km
- B. 4.4km
- C. 4.6km
- D. 4.7km

11. 家豪跑了 $4\frac{2}{5}$ km。家研跑了的路程比家豪長，但又不長於 $4\frac{27}{40}$ km。以下哪一個可能是家研跑了的路程？

- A. 4.04km
- B. 4.4km
- C. 4.6km
- D. 4.7km

Price List of Paper Cups

紙杯價目表

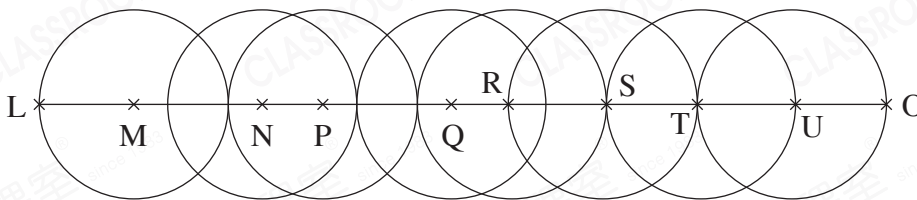
Package 包裝	Number(cup) 數量(個)	Price 售價
Small 小	22	\$18.2
Medium 中	40	\$27.3
Large 大	56	\$33.8

12. According to the above table, how many paper cups can Aaron buy for \$273 at most?

- A. 300
- B. 400
- C. 448
- D. 504

12. 根據上表，信義用 \$273 最多可買紙杯多少個？

- A. 300
- B. 400
- C. 448
- D. 504

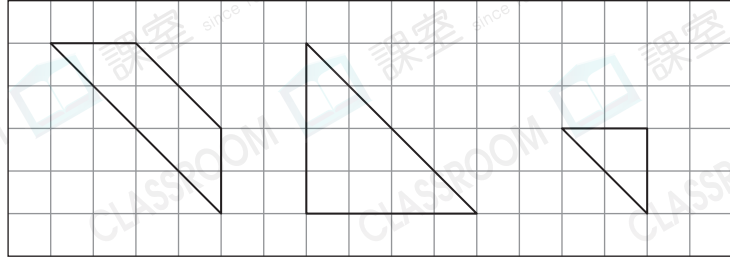


13. In the above figure, LO is a line segment passing through all the centres of the circles. If the diameter of each circle is 10cm, what is the length of LO?

- A. 40cm
- B. 45cm
- C. 50cm
- D. 80cm

13. 上圖中，LO 是一條經過所有圓心的線段。如果每個圓的直徑都是 10cm，LO 的長度是多少？

- A. 40cm
- B. 45cm
- C. 50cm
- D. 80cm

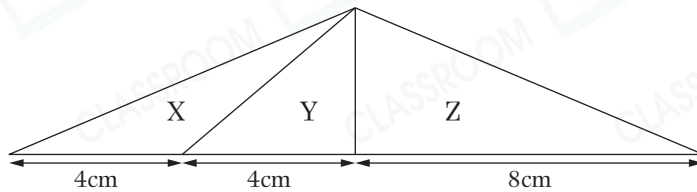


14. Which of the following shapes can be formed by using all the above figures?

- I. triangle
- II. parallelogram
- III. square
- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II and III

14. 用以上所有圖形，可以拼出以下哪些圖形？

- I. 三角形
- II. 平行四邊形
- III. 正方形
- A. 只有 I 及 II
- B. 只有 I 及 III
- C. 只有 II 及 III
- D. I、II 及 III



15. From the above figure, which of the following descriptions is correct?

- A. The area of Z is four times as large as that of X.
- B. The area of Y is smaller than that of X.
- C. The area of Z is the same as the total area of X and Y.
- D. The area of X is smaller than that of Y.

15. 根據上圖，下列哪一項描述是正確的？

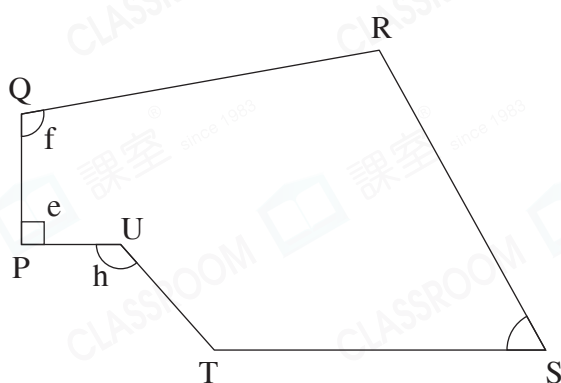
- A. Z 的面積是 X 的四倍。
- B. Y 的面積比 X 的小。
- C. Z 的面積與 X 和 Y 的總面積相等。
- D. X 的面積比 Y 的小。

16. If the total length of all the edges of a cube is 96cm, what is the volume of the cube?

- A. 13824cm^3
- B. 4096cm^3
- C. 1728cm^3
- D. 512cm^3

16. 若一個正方體的所有稜的總長度是96cm，則這個正方體的體積是多少？

- A. 13824cm^3
- B. 4096cm^3
- C. 1728cm^3
- D. 512cm^3

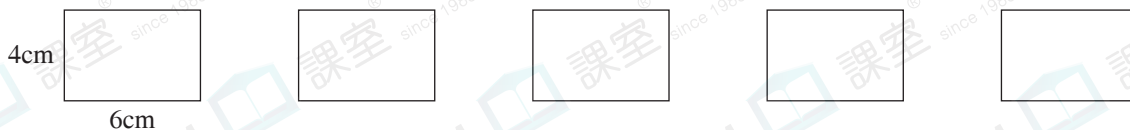


17. According to the above figure, which of the following descriptions is / are correct?

- I. $\angle h$ is a reflex angle.
 - II. $\angle f$ is an obtuse angle.
 - III. The size of $\angle e$ is larger than that of $\angle RST$.
- A. I only
 - B. II only
 - C. II and III only
 - D. I, II and III

17. 根據上圖，下列哪項/些描述是正確的？

- I. $\angle h$ 是反角。
 - II. $\angle f$ 是鈍角。
 - III. $\angle e$ 的角度比 $\angle RST$ 的大。
- A. 只有 I
 - B. 只有 II
 - C. 只有 II 及 III
 - D. I、II 及 III

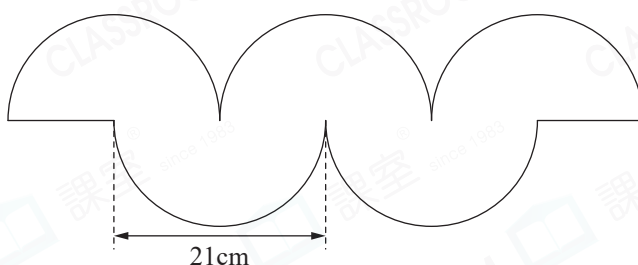


18. A new figure can be formed by using the above 5 rectangles of the same size and same shape together. What is the shortest perimeter of the new figure?

- A. 30cm
- B. 48cm
- C. 52cm
- D. 68cm

18. 用以上5個大小和形狀相同的長方形拼合成一個新的圖形。新圖形的周界最短是多少？

- A. 30cm
- B. 48cm
- C. 52cm
- D. 68cm

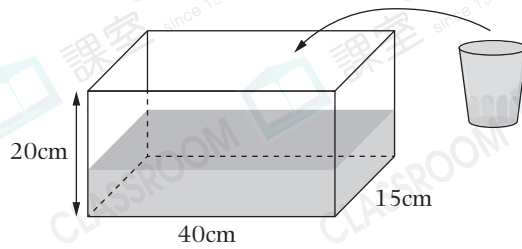


19. The above figure is formed by five semi-circles of the same size. What is the perimeter of the figure? (Take π as $\frac{22}{7}$)

- A. 165cm
- B. 186cm
- C. 330cm
- D. 351cm

19. 上圖是由五個大小相同的半圓組成，這個圖形的周界是多少？
(取 π 為 $\frac{22}{7}$)

- A. 165cm
- B. 186cm
- C. 330cm
- D. 351cm



20. Kimmi filled up a glass with water and poured the water into the tank. After she poured 24 glasses of water into the tank, the water level reached 40% of the height of the tank, as shown in the above figure. What is the capacity of the glass?

- A. 1200mL
- B. 500mL
- C. 200mL
- D. 100mL

20. 靜雯把玻璃杯盛滿水並把水倒入水缸。她倒了24杯水入水缸後，水位達至水缸高度的40%，如上圖所示。玻璃杯的容量是多少？

- A. 1200mL
- B. 500mL
- C. 200mL
- D. 100mL

21. The capacity of a pot was 4800mL. $\frac{3}{5}$ of it was filled with water. After a rock was immersed in the water, 30mL of the water overflowed. What was the volume of the rock?

- A. 1920cm³
- B. 1950cm³
- C. 2880cm³
- D. 2910cm³

21. 盆子的容量是4800mL，盛載了 $\frac{3}{5}$ 盆水。把一塊岩石完全放入水中，溢出30mL水，岩石的體積是多少？

- A. 1920cm³
- B. 1950cm³
- C. 2880cm³
- D. 2910cm³

22. Ship M and N left a pier and went along a straight route towards west. Ship M set off at 12:30 with an average speed of 45km/h. Ship N set off at 13:30 with an average speed of 40km/h. What was the distance between the two ships at 16:00?

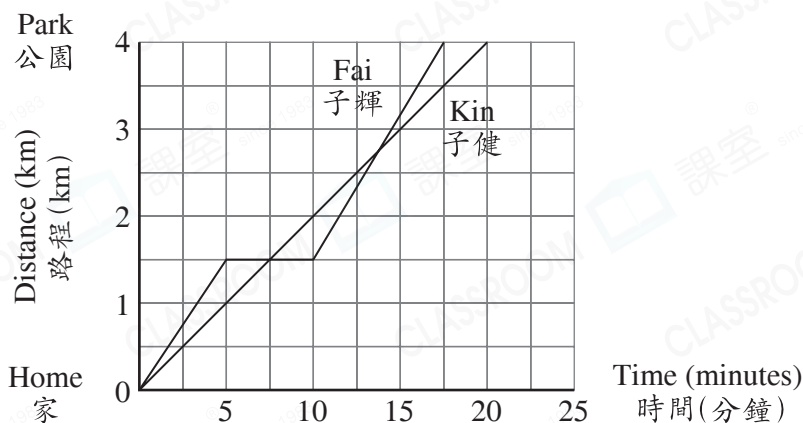
- A. 215km
- B. 157.5km
- C. 100km
- D. 57.5km

22. M、N兩艘渡輪離開碼頭沿直線向西方航行，渡輪M在12:30出發，它的平均速率是45km/h，而渡輪N在13:30出發，它的平均速率是40km/h。在16:00，兩艘渡輪相距多遠？

- A. 215km
- B. 157.5km
- C. 100km
- D. 57.5km

Travel Graph of Kin and Fai in Cycling

子健和子輝騎單車的行程圖



23. From the graph above, when Fai reached the park, how far did Kin still have to ride before reaching the park?

- A. 0.5km
- B. 1km
- C. 1.5km
- D. 3.5km

23. 根據上圖，當子輝到達公園時，子健還要騎多遠才到達公園？

- A. 0.5km
- B. 1km
- C. 1.5km
- D. 3.5km

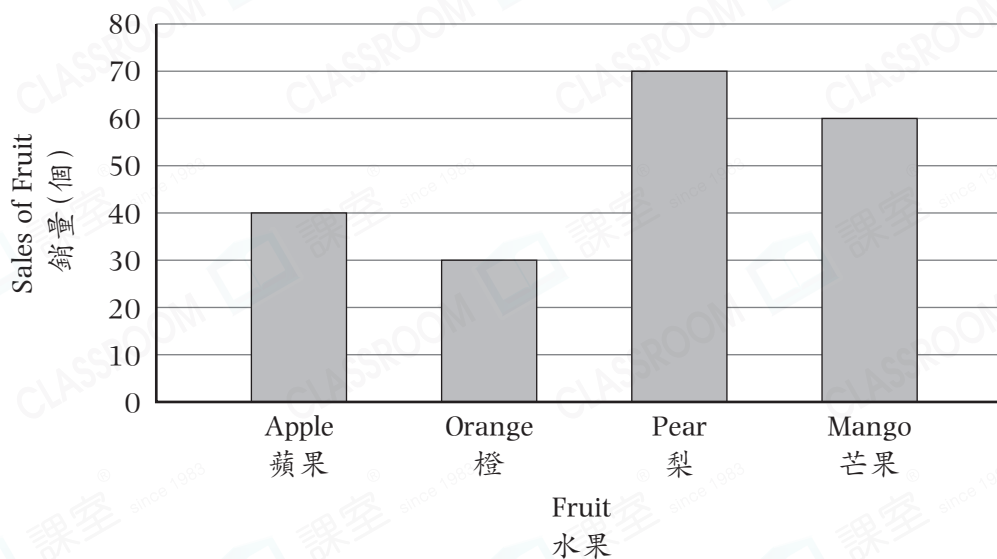
24. Eric finished a 2000m race in 6 minutes. He took 1.5 minutes more than Ivan's time. What was the average speed for Ivan to finish the 2000m race?

- A. $4\frac{4}{9}$ m/s
- B. $5\frac{5}{9}$ m/s
- C. $7\frac{11}{27}$ m/s
- D. $22\frac{2}{9}$ m/s

24. 志信用了6分鐘跑完2000m。志信用去的時間比浩威的多1.5分鐘。浩威跑完2000m的平均速率是多少？

- A. $4\frac{4}{9}$ m/s
- B. $5\frac{5}{9}$ m/s
- C. $7\frac{11}{27}$ m/s
- D. $22\frac{2}{9}$ m/s

Sales of Fruit in a Fruit Shop in the Morning
某水果店上午水果的銷量



25. What percentage of the total sales of fruit is the sales of mangos in the morning?

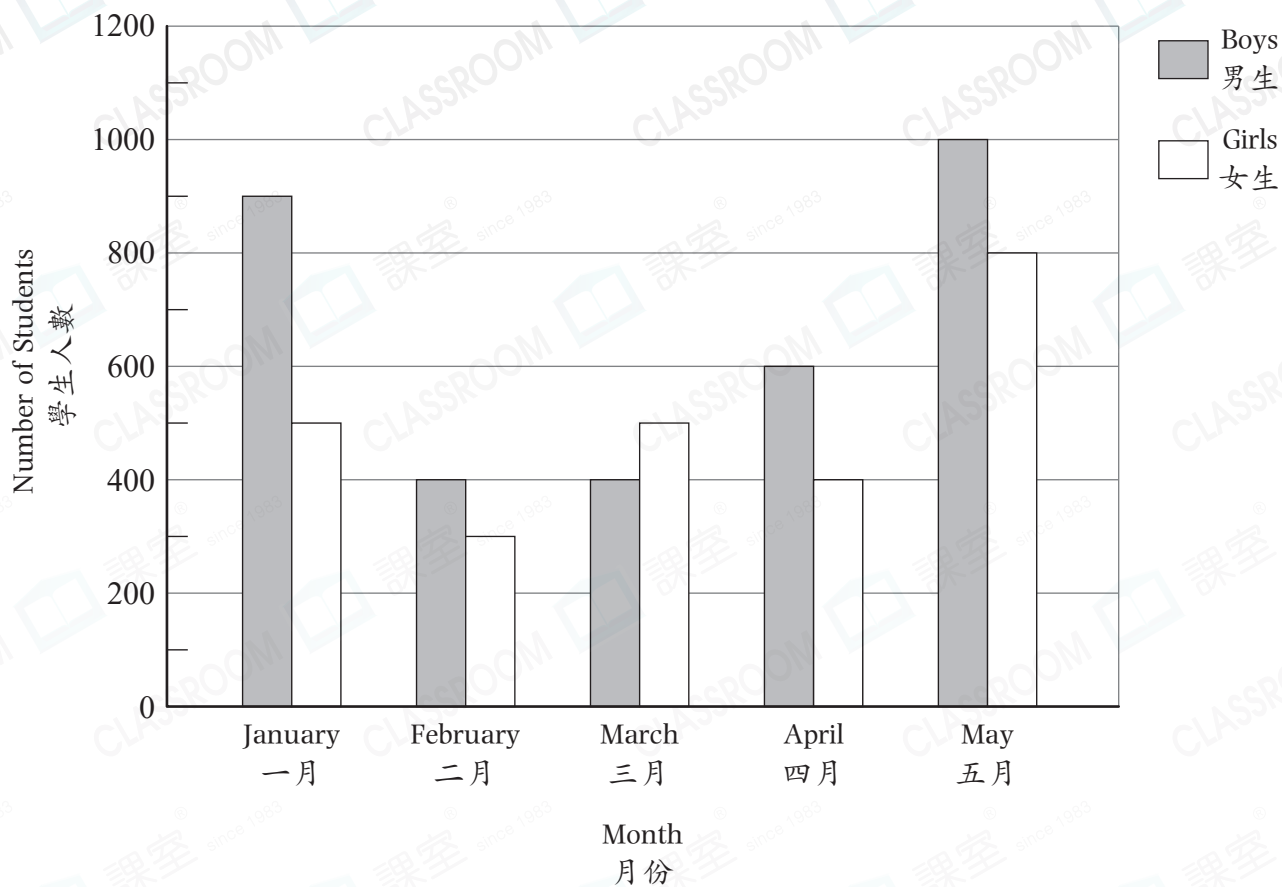
- A. 20%
- B. 25%
- C. 30%
- D. 43%

25. 在上午，芒果的銷量佔水果總銷量的百分之幾？

- A. 20%
- B. 25%
- C. 30%
- D. 43%

Number of Students Using the Study Room in the Past Five Months

過去五個月使用自修室的學生人數



26. According to the above graph, what is the average monthly number of girls using the study room in the past five months?

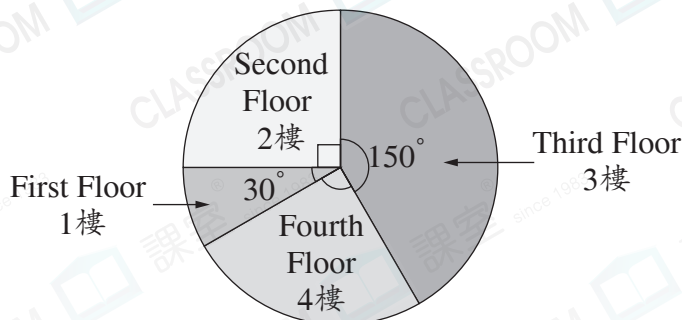
- A. 470
- B. 500
- C. 580
- D. 660

26. 根據上圖，過去五個月平均每月使用自修室的女生人數是多少？

- A. 470
- B. 500
- C. 580
- D. 660

Number of Rooms in a Hotel

某酒店的房間數量



27. There are 180 rooms in this hotel. Which of the following is correct?

- A. The number of rooms on the first floor is $\frac{1}{4}$ of the total number of rooms.
- B. The number of rooms on the third floor is 60% of that on the second floor.
- C. There are 30 rooms on the first floor.
- D. There are 30 more rooms on the third floor than on the fourth floor.

27. 這個酒店共有 180 間房。以下哪一項是正確的？

- A. 1樓的房間數量是房間總數的 $\frac{1}{4}$ 。
- B. 3樓的房間數量是2樓的60%。
- C. 1樓有30間房。
- D. 3樓的房間數量比4樓的多30間。

28. The average mark of Toby was 80 in the past 4 tests. His marks of the first three tests were 65, 85 and 70 respectively. What was his mark of the fourth test?

- A. 100
- B. 99
- C. 98
- D. 97

28. 子明4次測驗的平均分是80分。他在首三次測驗的分數分別是65分、85分和70分，在第四次測驗的分數是多少？

- A. 100
- B. 99
- C. 98
- D. 97

29. There are 6 members in an interest group. In the group, there were $(3M + 11)$ pieces of craft paper. After each member took 2 pieces of craft paper, how many pieces of craft paper were left in the group?

- A. $3M - 1$
- B. $3M - 5$
- C. $3M + 1$
- D. $3M + 5$

29. 某興趣小組共有6名組員，小組原有 $(3M + 11)$ 張手工紙，每名組員拿了2張後，小組還有手工紙多少張？

- A. $3M - 1$
- B. $3M - 5$
- C. $3M + 1$
- D. $3M + 5$

30. Study the following expression:

$$\begin{array}{r} \boxed{T} \quad \boxed{8} \\ + \quad \boxed{2} \quad \boxed{R} \\ \hline \boxed{9} \quad \boxed{5} \end{array}$$

Find the result of $T \times R$.

- A. 13
- B. 40
- C. 42
- D. 67

30. 觀察以下的算式：

$$\begin{array}{r} \boxed{T} \quad \boxed{8} \\ + \quad \boxed{2} \quad \boxed{R} \\ \hline \boxed{9} \quad \boxed{5} \end{array}$$

找出 $T \times R$ 的結果。

- A. 13
- B. 40
- C. 42
- D. 67

End of Section A

甲部完

SECTION B (40 marks)

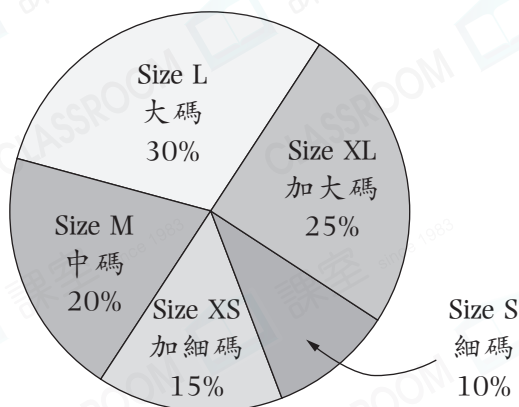
Working steps must be shown in answering questions in this section unless specified otherwise.

乙部 (40分)

除特別指明外，在回答本部問題時，須列出計算步驟。

Number of Sport Shirts in the Warehouse

倉庫裏運動衣的數量



31. The above chart shows the number of sport shirts in the warehouse. There are 800 sport shirts in the warehouse.

- (a) What is the fraction of the sport shirts in size XS to all sport shirts? (Give the answer only) [2 marks]
- (b) What is the difference between the number of sport shirts in size L and size S? (Give the answer only) [2 marks]
- (c) Among the sport shirts in size XL, 30% of them are women's sport shirts. How many men's sport shirts in size XL are there? [4 marks]

31. 上圖顯示倉庫裏運動衣的數量。倉庫裏有800件運動衣。

- (a) 加細碼運動衣佔全部運動衣的幾分之幾？(只須寫出答案) [2分]
- (b) 大碼運動衣和細碼運動衣相差多少件？(只須寫出答案) [2分]
- (c) 在加大碼運動衣中，30%是女款運動衣，即加大碼的男款運動衣有多少件？ [4分]

32. Ivy has to reach the bookshop at 9:20 a.m. every day.

- (a) Yesterday, Ivy drove to the bookshop from her home at 8:55 a.m. The average speed of the car was 40km/h. Ivy was late for 5 minutes. What was the distance between Ivy's home to the bookshop? (Give the answer only) [2 marks]
- (b) If Ivy needed to reach the bookshop at 9:20 a.m., what should be the average speed of her car? (Give the answer only) [2 marks]

32. 文萍每天都要在 9:20 a.m. 到達書局。

- (a) 昨天，文萍於 8:55 a.m. 從家駕車去書局，汽車的平均速率是 40km/h，結果文萍遲到了 5 分鐘。文萍家到書局的路程是多少？(只須寫出答案) [2分]
- (b) 如果文萍要在 9:20 a.m. 到達書局，汽車的平均速率應是多少？(只須寫出答案) [2分]

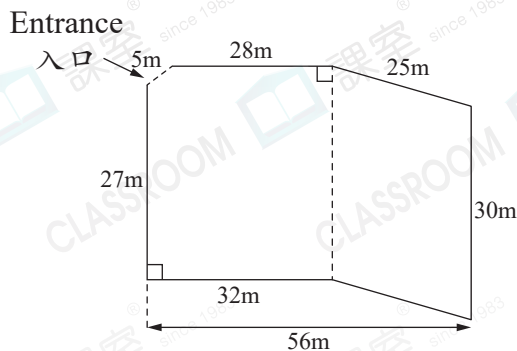
Brand 牌子	X	Y	Z
Weight (Each bag) 重量(每包)	1.25kg	$1\frac{1}{5}$ kg	$1\frac{7}{10}$ kg

33. The above table shows the weight of the three brands of flour.

- (a) May used 3 bags of flour of Brand X in 5 days. How many grams of flour did she use on average every day? (Give the answer only) [2 marks]
- (b) Which brand of flour is the lightest? (Give the answer only) [2 marks]

33. 上表是 3 個牌子麵粉的重量。

- (a) 芝潔 5 天用去 3 包牌子 X 的麵粉，她平均每天用去麵粉多少克？(只須寫出答案) [2分]
- (b) 哪一個牌子的麵粉最輕？(只須寫出答案) [2分]

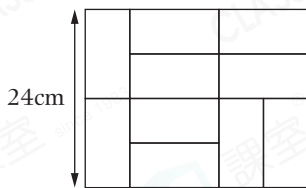


34. The above figure shows the plan of the nursery garden.

- (a) What is the area of the nursery garden? (Give the answer only) [2 marks]
- (b) Fence will be built around the nursery garden except the Entrance. The cost of building the fence is \$93 per metre. What is the cost for building the fence? (Give the answer only) [2 marks]

34. 上圖是苗圃的平面圖。

- (a) 苗圃的面積是多少？(只須寫出答案) [2分]
- (b) 除入口外，苗圃的周圍要築起籬笆，每米的費用是\$93，建築費用是多少？(只須寫出答案) [2分]



35. (a) The above figure is made from 10 rectangles of the same size and same shape. What is the perimeter of each rectangle? (Give the answer only) [2 marks]
- (b) What is the area of the whole figure? [4 marks]

35. (a) 上圖由10個大小和形狀相同的長方形組成。每個長方形的周界是多少？(只須寫出答案) [2分]
- (b) 整個圖形的面積是多少？ [4分]

36. Each ticket of the AI fair cost \$58.

(a) Efren had \$315, how many tickets could he buy at most? (Give the answer only) [2 marks]

(b) Efren shopped in Stall A and the serial number of Stall A was a 2-digit number. The number was a multiple of 25 and divisible by 3. What was the serial number of Stall A? (Give the answer only) [2 marks]

36. 人工智能展會的入場券每張售\$58。

(a) 國華有\$315，他最多可以買入場券多少？(只須寫出答案) [2分]

(b) 國華在攤位A購物，攤位A的編號是兩位數。該數是25的倍數，並能被3整除。攤位A的編號是什麼？(只須寫出答案) [2分]

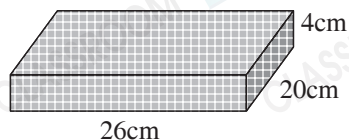


(c) The above figure is the floor plan of parts area of the AI fair. The Stall B was in the east of the Stall C. If Efren wanted to go to the Stall B from the Stall A, in which direction should he go? (Give the answer only) [2 marks]

(c) 上圖是人工智能展會零件區的平面圖，攤位B在攤位C的東方。如果國華想從攤位A走到攤位B，他應該向哪個方向走？(只須寫出答案) [2分]

37. Mrs Lee wants to buy some cushions and placemats.

37. 李太太想購買坐墊和盤墊。



(a) The above figure is one of the cushions Mrs Lee bought. What is the volume of this cushion?
[4 marks]

(a) 上圖是李太太買的其中一個坐墊。這個坐墊的體積是多少？
[4分]

Cushions 坐墊	Price 售價	Placemat 盤墊	Price 售價
Each 每個	\$35.9	Diameter per placemat not over 每個的直徑不超過	8cm \$5.2
			10cm \$9.5
			12cm \$12.5

(b) Mrs Lee bought 2 cushions and 6 placemats with diameter of 10.4cm each. According to the above table, how much should she pay?
[4 marks]

(b) 李太太購買了2個坐墊和6個直徑各是10.4cm的盤墊。根據上表，她須付款多少？
[4分]